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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,648	10/06/2003	Emmanuel Kanterakis	57042-084	7813

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MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

FILE, ERIN M

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/678,648

Applicant(s)

KANTERAKIS, EMMANUEL

Examiner

Erin M. File

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-18, 20, 23-27, 29-31, 33, 34 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 19, 21, 22, 28 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/10/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings fail to illustrate a method as described in Claims 1-22, 33, and 34.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 8, 10-13, 16, 18, 20 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Gopalakrishnan et al. (U.S. Pub. No. 2002/0183064).

Claims 1, 11, 18, 27, Gopalakrishnan discloses:

- transmitting from the MS-spread-spectrum transmitter of the one mobile station a spread-spectrum signal signifying a request to utilize an uplink channel ([0005], lines 5-7, [0006], line 2);
- receiving the request to utilize the uplink channel from the one mobile station at the BS-spread-spectrum receiver ([0005], lines 7-11);
- processing the received request to determine whether or not to grant the requested access ([0005], lines 11-15);
- if the processing results in a determination to grant access, transmitting from the BS-spread-spectrum transmitter a spread spectrum signal comprising a channel-request-granted message for the one mobile station, the channel-request-granted message comprising control information specifying a transmission start time and a transmission length ([0017]);

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- receiving the channel-request-granted message from the base station at the MS-spread-spectrum receiver the one mobile station ([0017], lines 1-2);
- at the specified transmission start time, initiating transmission from the BS-spread-spectrum transmitter of a spread spectrum signal comprising control signaling related to the granted access over a downlink channel [0017];
- receiving the spread spectrum signal comprising control signaling at the MS-spread-spectrum receiver the one mobile station [(0017), lines 1-2);
- at a predetermined time after the specified transmission start time, starting transmission of a spread spectrum signal containing packet data over the uplink channel from the MS-spread-spectrum transmitter of the one mobile station, in a manner in accord with the received control information ([0006], lines 4-9, Gopalakrishnan discloses the packet scheduling is determined for the uplink channel by the control information);
- and ceasing the transmission of the spread spectrum signal containing packet data over the uplink channel from the mobile station, upon completion of transmission of packet data of the specified transmission length ([0005] Gopalakrishnan discloses that the control information includes length information for uplink channel).

Claims 3, 12, 13, Gopalakrishnan further discloses a message further comprising Hybrid-ARQ (Automatic Repeat reQuest) information ([0016], [0018]).

Claims 8, 16, 20, Gopalakrishnan further discloses the uplink channel is a physical dedicated channel ([0074], lines 6-9).

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Claim 10, Gopalakrishnan further discloses the request to utilize the uplink channel comprises control information specifying a quality of service level desired for the requested access ([0005], lines 9-11).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan et al. (U.S. Pub. No. 2002/0183064) as applied to claims 1 and 11 above, and further in view of Lintulampli (U.S. Patent No. 7,075,907).

Claim 2, Gopalakrishnan fails to disclose when the transmission of the spread spectrum signal containing packet data over the uplink channel ceases, the uplink physical dedicated channel is immediately released, however, Lintulampli discloses when the transmission of the spread spectrum signal containing packet data over the uplink channel ceases, the uplink physical dedicated channel is immediately released (col. 4, lines 49-56). Because the release of this unused uplink channel allows for more efficient use of the physical channels, it would have been obvious to one skilled in the art at the time of invention to incorporate the release of uplink channels as disclosed by Lintulampli into the invention of Gopalakrishnan.

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Claim 15, Gopalakrishnan fails to disclose releasing at least one resource related to the uplink physical dedicated channel when the reception of the packet data over the uplink channel ceases after receipt of the transmission of the specified length, however, Lintulampila discloses releasing at least one resource related to the uplink physical dedicated channel when the reception of the packet data over the uplink channel ceases after receipt of the transmission of the specified length (col. 4, lines 49-56). Because the release of this unused uplink channel resources allows for more efficient use of the physical channels, it would have been obvious to one skilled in the art at the time of invention to incorporate the release of uplink channel resources as disclosed by Lintulampila into the invention of Gopalakrishnan.

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan (U.S. Pub. No. 2002/0183064) as applied to claim 27 above, and further in view of Spartz et al. (U.S. Patent No. 6,178,337).

Claim 29, Gopalakrishnan fails to disclose a base band processor, however, Spartz discloses a transceiver system including a base band processor (col. 26, lines 66-67). Baseband processing is well known in the art because it introduces less error into the data processing. Because of this advantage, it would have been obvious to one skilled in the art at the time of invention to incorporate the baseband processor as disclosed by Spartz into the invention of Gopalakrishnan.

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8. Claims 4, 5, 9, 14, 17, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan et al. (U.S. Pub. No. 2002/0183064) as applied to claim 1, 11, 27 above, and further in view of Choi et al. (U.S. Pub. No. 2003/0103476).

Claims 4, 14, Gopalakrishnan discloses the spread-spectrum transmitter transmits the channel request-granted message on a downlink forward access channel ([0005], lines 9-11). Choi discloses transmitting the control signaling on a downlink packet sharing control channel ([0011], lines 4-5).

Claim 5, Gopalakrishnan further discloses a message further comprising Hybrid-ARQ (Automatic Repeat reQuest) information ([0016], [0018])

Claims 9, 17, Gopalakrishnan fails to disclose the uplink channel is a common packet channel, however, Choi discloses the uplink channel is a common packet channel ([0011], lines 4-5). Choi further discloses the CPCH enables the UE (user element, or mobile station) to transmit a data channel of a high rate for a predetermined time (from several tens to several hundreds of ms) and further, that the CPCH enables the UE to rapidly transmit an uplink transmission ([0011], lines 8-13). Because of these advantages, it would have been obvious to one skilled in the art at the time of invention to incorporate the use of common packet channels as disclosed by Choi into the invention of Gopalakrishnan.

Claim 30, Gopalakrishnan fails to disclose a controller, responsive to signals from the spread-spectrum receiver and the media access control interface, for controlling operations of the spread-spectrum transmitter, however, Choi discloses a spread-spectrum transmitter and a spread spectrum receiver ([0008]; and a controller,

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responsive to signals from the spread-spectrum receiver and the media access control interface, for controlling operations of the spread-spectrum transmitter ([0055]).

Claim 31, Gopalakrishnan discloses the spread-spectrum transmitter transmits the channel request message on an uplink packet control channel ([0005], lines 9-11).

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan et al. (U.S. Pub. No. 2002/0183064) in view of Choi et al. (U.S. Pub. No. 2003/0103476).

Claim 23, Gopalakrishnan discloses:

- a BS-spread-spectrum transceiver system, for transmitting and receiving spread-spectrum modulated signals to and from a mobile station ([0005], lines 5-7, [0006], line 2);
- receiving and sending packet data between a network and the BS-spread-spectrum transceiver system and controlling signal communications of the BS-spread-spectrum transceiver system in support of wireless communications operations of the base station ([0005])
- receiving a data channel initialization request, for access to an uplink channel, at the base station from one mobile station ([0005], lines 7-11);
- determining whether or not to grant the mobile station the requested access to the uplink channel ([0005], lines 11-15);
- if it is determined to grant the mobile station the requested access to the uplink channel, transmitting a channel-request-granted message for the one mobile

station, the channel-request-granted message comprising control information specifying a transmission start time and a transmission length ([0017]);

- at the specified start time, initiating transmission of control signaling related to the requested access, for the one mobile station ([0006], lines 4-9, Gopalakrishnan discloses the packet scheduling is determined for the uplink channel by the control information); and
- receiving a packet data transmission of the specified transmission length from the one mobile station over the uplink channel ([0005] Gopalakrishnan discloses that the control information includes length information for uplink channel).

Gopalakrishnan fails to disclose a media access control interface, coupled to the BS-spread-spectrum transceiver system, however, Choi discloses a media access control interface, coupled to the BS-spread-spectrum transceiver system ([0555]). Media Access Control interfaces are well known in the art because they allow for increased channel utilization through improved common channel sharing. Because of this advantage, it would have been obvious to one skilled in the art at the time of invention to incorporate the MAC as disclosed by Choi into the invention of Gopalakrishnan.

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10. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopalakrishnan (U.S. Pub. No. 2002/0183064) and Choi et al. (U.S. Pub. No. 2003/0103476) as applied to claim 23 above, and further in view of Spartz et al. (U.S. Patent No. 6,178,337).

Claims 24, Gopalakrishnan fails to disclose a base band processor, however, Spartz discloses a transceiver system including a base band processor (col. 26, lines 66-67). Baseband processing is well known in the art because it introduces less error into the data processing. Because of this advantage, it would have been obvious to one skilled in the art at the time of invention to incorporate the baseband processor as disclosed by Spartz into the combined invention of Gopalakrishnan and Choi.

Claim 25, Choi discloses a spread-spectrum transmitter and a spread spectrum receiver ([0008]; and a controller, responsive to signals from the spread-spectrum receiver and the media access control interface, for controlling operations of the spread-spectrum transmitter ([0055]).

Claim 26, Gopalakrishnan discloses the spread-spectrum transmitter transmits the channel request-granted message on a downlink forward access channel ([0005], lines 9-11). Choi discloses transmitting the control signaling on a downlink packet sharing control channel ([0011], lines 4-5).

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11. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamdi (U.S. Pub. No. 2004/0204079) in view of Gopalakrishnan et al. (U.S. Pub. No. 2002/0183064).

Claim 33, Hamdi discloses:

- detecting a length of inactivity on the at least one wireless channel after the sending and receiving ([0050], lines 9-11);
- in response to the detected inactivity, sending a power down request message to the one mobile station ([0050], lines 13-14);
- receiving a power down confirmation message from the one mobile station ([0050], lines 14-15);
- transmitting at least one further signal for the one mobile station at a reduced power ([0050], lines 14-22).

Hamdi fails to disclose sending control signaling to and receiving a packet data transmission from, one mobile station, over at least one CDMA spread-spectrum wireless channel, however, Gopalakrishnan discloses sending control signaling to and receiving a packet data transmission from, one mobile station, over at least one CDMA spread-spectrum wireless channel ([0005]). Gopalakrishnan discloses his method has the advantage of being particularly useful with respect to the packet data component of the overall traffic and serves to efficiently utilize the uplink channel while striking a balance between minimizing aggregate channel interference and improving user level quality of service ([0006], lines 5-10). Because of this advantage, it would have been obvious to one skilled in the art at the time of invention to incorporate the spread

spectrum transceiver control as disclosed by Gopalakrishnan into the invention of Hamdi.

Claim 34, Gopalakrishnan discloses:

- receiving a data channel initialization request, for access to an uplink channel, from the one mobile station ([0005], lines 7-11);
- determining whether or not to grant the mobile station the requested access to the uplink channel ([0005], lines 11-15);
- if it is determined to grant the mobile station the requested access to the uplink channel, transmitting a channel-request-granted message for the one mobile station, the channel-request-granted message comprising control information specifying a transmission start time and a transmission length ([0017]);
- at the specified start time, initiating transmission of control signaling related to the requested access, for the one mobile station ([0006], lines 4-9, Gopalakrishnan discloses the packet scheduling is determined for the uplink channel by the control information);
- receiving a packet data transmission of the specified transmission length from the one mobile station over the uplink channel ([0005] Gopalakrishnan discloses that the control information includes length information for uplink channel).

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10, the meaning or significance of the expression *buffer state* in the recitation "specifying a buffer state of the one mobile station" is unclear.

Allowable Subject Matter

14. Claims 6, 7, 19, 21, 22 28, and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin M. File whose telephone number is (571)272-6040. The examiner can normally be reached on M-F 1:00PM-9:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on (571)272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

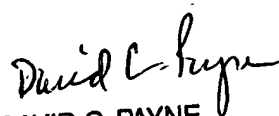
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Erin M. File

ENP

2/3/2007


DAVID C. PAYNE
PRIMARY PATENT EXAMINER